

1 PACKET PROCESSOR WITH MULTI-LEVEL POLICING LOGIC

ABSTRACT OF THE DISCLOSURE

5 A switch includes a backplane and multiple packet
processors. One or more packet processors include multi-level
policing logic. The packet processor receives a packet and
classifies the packet into multiple policeable groups. The
10 packet is compared against bandwidth contracts defined for the
policeable groups. Nested lookups are performed for the packet
in a policing database to identify the multiple groups and to
retrieve policing data for the multiple policeable groups. The
15 policing results, which may be combined into a single policing
result by taking the worst case policing result, are applied to
disposition logic as recommendations, and are combined with
other disposition recommendations to make a disposition decision
for the packet.

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